

REPRODUCTION OF CLAIMS WITH AMENDMENTS TO CLAIMS

1. (Previously presented) An apparatus for transferring poultry carcasses suspended from shackles from a first overhead conveyor to a second overhead conveyor, comprising:

a transfer wheel having a perimeter rotatable about a vertical axis for positioning between the first and the second overhead conveyors,

said transfer wheel being provided with carcass holders at the perimeter of the transfer wheel that are movable with the transfer wheel and revolve about the vertical axis of the transfer wheel, said carcass holders each being rotatable with respect to said transfer wheel about its own vertical axis at the perimeter of said transfer wheel,

holder orientation means operatively associated with said transfer wheel configured for rotating the carcass holders with respect to the transfer wheel about their respective axes and for equalizing the rotational orientation of the carcass holders from receipt of the carcasses on the transfer wheel to the discharge of the carcasses from the transfer wheel, the initial rotational orientation and the final rotational orientation of the carcasses being identical relative to the first overhead conveyor and to the second overhead conveyor.

2. (Previously presented) An apparatus for transferring poultry carcasses suspended from shackles from a first overhead conveyor to a second overhead conveyor, comprising:

a transfer wheel having a perimeter rotatable about a vertical axis for positioning between the first and the second overhead conveyors,

said transfer wheel being provided with carcass holders at the perimeter of the transfer wheel that are movable with the transfer wheel and revolve about the vertical axis of the transfer wheel, said carcass holders being rotatable with respect to said transfer wheel,

holder orientation means operatively associated with said transfer wheel configured for rotating the carcass holders with respect to the transfer wheel and for equalizing the rotational orientation of the carcass holders from receipt of the carcasses on the transfer wheel to the discharge of the carcasses from the transfer wheel, the initial rotational orientation and the final rotational orientation of the carcasses being identical relative to the first overhead conveyor and to

the second overhead conveyor wherein the orientation means is adapted for keeping the rotational orientation of the carcass in the holder constant throughout the transport on the transfer wheel.

3. (Previously presented) An apparatus according to claim 2, wherein each of said holders is bearing mounted in the transfer wheel to be rotatable about themselves about a vertical axis.

4. (Previously presented) An apparatus according to claim 3, the orientation means being adapted for relative rotation of the holders with respect to the transfer wheel.

5. (Previously presented) An apparatus according to claim 1, wherein the orientation means is adapted for rotating the holders 1:1 with respect to the rotation of the transfer wheel from receipt to discharge of the carcasses from the transfer wheel.

6. (Previously presented) An apparatus according to claim 1, the orientation means comprising the first orientation means for orienting a first of the holders, and second orientation means for orienting others of the holders, which second orientation means are operated by the first orientation means.

7. (Previously presented) An apparatus for transferring poultry carcasses suspended from shackles from a first overhead conveyor to a second overhead conveyor, comprising:
a transfer wheel having a perimeter rotatable about a vertical axis for positioning between the first and the second overhead conveyors,

said transfer wheel being provided with carcass holders at the perimeter of the transfer wheel that are movable with the transfer wheel and revolve about the vertical axis of the transfer wheel, said carcass holders being rotatable with respect to said transfer wheel,

holder orientation means operatively associated with said transfer wheel configured for rotating the carcass holders with respect to the transfer wheel and for equalizing the rotational orientation of the carcass holders from receipt of the carcasses on the transfer wheel to the discharge of the carcasses from the transfer wheel, the initial rotational orientation and the final

rotational orientation of the carcasses being identical relative to the first overhead conveyor and to the second overhead conveyor,

the transfer wheel being connected to a vertical shaft in a rotatably fixed manner, the shaft being rotatable about the vertical axis, the first orientation means comprising a first driving disc provided on the first holder, a second driving disc placed loosely on the shaft but retained in spacial orientation, and a driving belt or driving chain running circumferentially about both said first and second driving discs.

8. (Previously presented) An apparatus according to claim 7, the diameter of both driving discs being equal.

9. (Cancelled)

10. (Previously presented) An apparatus for transferring poultry carcasses suspended from shackles from a first overhead conveyor to a second overhead conveyor, comprising:

a transfer wheel having a perimeter rotatable about a vertical axis for positioning between the first and the second overhead conveyors,

said transfer wheel being provided with carcass holders at the perimeter of the transfer wheel that are movable with the transfer wheel and revolve about the vertical axis of the transfer wheel, said carcass holders being rotatable with respect to said transfer wheel,

holder orientation means operatively associated with said transfer wheel configured for rotating the carcass holders with respect to the transfer wheel and for equalizing the rotational orientation of the carcass holders from receipt of the carcasses on the transfer wheel to the discharge of the carcasses from the transfer wheel, the initial rotational orientation and the final rotational orientation of the carcasses being identical relative to the first overhead conveyor,

the orientation means comprising the first orientation means for orienting a first of the holders, and second orientation means for orienting others of the holders, which second orientation means are operated by the first orientation means, and

the second orientation means comprising a first toothed wheel that is attached to the first holder in a rotably fixed manner, a central toothed wheel freely rotatable on a shaft and driven by

18 the first toothed wheel, and second toothed wheels each attached in a rotably fixed manner to the
19 other holders, which second toothed wheels are in driven engagement with the central toothed
20 wheel.

1 11. (Previously presented) An apparatus according to claim 10, wherein the second toothed
2 wheels each having a diameter that is equal to the diameter of the first toothed wheel.

1 12. (Previously presented) An apparatus for transferring poultry carcasses from a first
2 overhead conveyor to a second overhead conveyor, in which overhead conveyors the carcasses
3 are transported suspended from shackles comprising:

4 a transfer wheel rotatable about a vertical axis and positioned between both the first and
5 the second overhead conveyors,

6 said transfer wheel being provided with holders for the carcasses that are radially spaced
7 from said vertical axis of said transfer wheel and movable with the transfer wheel to revolve
8 about the vertical axis of the transfer wheel from the first overhead conveyor to the second
9 overhead conveyor, each said holder having an upwardly extending central shaft about which it
10 rotates, and

11 orientation means responsive to the rotation of said transfer wheel for rotating each of
12 said holders about its respective central shaft and with respect to the transfer wheel during the
13 transport of the holders by the transfer wheel from the first overhead conveyor to the second
14 overhead conveyor to deliver the carcasses, to the second overhead conveyor in the same
15 rotational orientation as received from the first overhead conveyor.

1 13. (Previously presented) An apparatus according to claim 12, wherein the orientation means
2 is adapted for 1:1 continuous rotation of the holders with respect to the transfer wheel.

1 14 - 20 (Cancelled)

1 21. (Previously presented) An apparatus for transferring poultry carcasses from a first
2 overhead conveyor to a second overhead conveyor, comprising:

3 a transfer wheel rotatable about a shaft and having a perimeter, said transfer wheel
4 disposed between the first and the second overhead conveyors;

5 a carcass receipt point and a carcass discharge point, the carcass receipt point being
6 disposed between the first overhead conveyor and the transfer wheel, the carcass discharge point
7 being disposed between the transfer wheel and the second overhead conveyor;

8 a plurality of holders, each holder being rotatably mounted on said transfer wheel at the
9 perimeter of the transfer wheel and configured to receive one of the carcasses from the first
10 overhead conveyor at the carcass receipt point and to discharge the carcass to the second
11 overhead conveyor at the carcass discharge point; and

12 holder orientation means responsive to the continuous rotation of said transfer wheel for
13 continuously rotating said holders in unison with respect to said transfer wheel;

14 said holder orientation means configured so that each carcass received by a holder
15 maintains its rotational orientation as received at the carcass receipt point continuously until
16 delivered to the carcass discharge point.

1 22. (Previously presented and allowed) The apparatus according to claim 21, and further
2 including a toothed wheel engaging each holder for rotating each holder in unison in response to
3 the rotation of said transfer wheel.

1 23. (Previously presented) The apparatus according to claim 21, wherein each holder is
2 operatively connected to the other holders and each holder maintains a constant orientation
3 relative to the other holders as it rotates with respect to the transfer wheel.

1 24. (Previously presented) An apparatus for transferring poultry carcasses from a first
2 overhead conveyor to a second overhead conveyor, comprising:

3 a transfer wheel positioned between said first and second overhead conveyors, said
4 transfer wheel having a central axis and a perimeter rotatable about said central axis,

5 a plurality of bird holders spaced about said perimeter of said transfer wheel for receiving
6 the poultry carcasses from said first overhead conveyor and carrying the poultry carcasses from
7 said first overhead conveyor about said central axis to said second overhead conveyor and
8 delivering the carcasses to said second overhead conveyor, said bird holders each being rotatable
9 about an upwardly extending axis at the perimeter of said transfer wheel, and

10 orientation control means responsive to the rotation of said transfer wheel for rotating the
11 bird holders with respect to the transfer wheel about their respective upwardly extending axes
12 and for equalizing the rotational orientation of the bird holders about said upwardly extending
13 axes from receipt of the carcasses on the transfer wheel to the discharge of the carcasses from the
14 transfer wheel to deliver the carcasses to the second overhead conveyor in the same rotational
15 orientation as received from the first overhead conveyor.

1 25. (Cancelled)